TRIANGLE COATINGS, INC.

SAFETY DATA SHEET

Section 1: Chemical Product and Company Identification

PRODUCT NAME: **Rust Solution**
IDENTIFICATION NUMBER: **AM213**
PRODUCT USE/CLASS: **Rusting Solution for Iron**

Date Printed: 9/22/2021

MANUFACTURER:
Triangle Coatings, Inc.
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Auckland 2014
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NEW ZEALAND POISON CENTRE

0800 POISON / 0800 764 766

Section 2: Hazards Identification

GHS Classification

Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Chronic aquatic toxicity (Category 2), H411

GHS Label element

GHS HAZARD STATEMENTS

H411: Toxic to aquatic life with long-lasting effects

GHS PRECAUTION PHRASES

Prevention	P273: Avoid release to the environment.
Response	P391: Collect spillage.
Storage	P401: Store at temperatures above 32°F (0°C). Keep from freezing
Disposal	P501: Dispose of contents and containers in accordance with national and local regulations.

Hazards not otherwise classified (HNOC)
None known.

Other Information
This product does not contain any substances classified as PBT or vPvB.
Unknown acute toxicity

NEW ZEALAND EPA Group Standard Approval:
Metal Industry Products (Subsidiary Hazard) Group Standard 2020 HSR002612

Section 3: Composition, Information on Ingredients

Substance/mixture: Mixture
Product Name: **Rust Solution**

CAS-No.	Components	Weight Percent
7758-98-7	Anhydrous Copper Sulfate	2.5-5%
12125-02-9	Ammonium Chloride	2.5-5%

Substances listed in the Subsections "HAPS" and "California Proposition 65 Carcinogens / Reproductive Toxins" that are not listed in this section are only present at quantities below 0.1% for California Proposition 65 listed toxins or below 1% for non-carcinogenic HAPS or they are inextricably bound in the product. Specific chemical identities and/or exact percentage (concentration) of the composition may have been withheld as a trade secret.

Section 4: First Aid Measures

Description of first aid measures

General advice: Get medical attention if irritation or other symptoms occur. Before seeking medical attention remove contaminated clothing and shoes. Take a copy of the Safety Data Sheet when going for medical treatment.

Inhalation: If inhaled as aerosol, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

Skin contact: For skin contact, immediately wipe away excess material. Use a waterless hand cleaner to remove as much of the remaining material as possible. Wash with soap and water.

Eye contact: If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min. Keep eyelids well open to rinse the whole eye surface and eyelids with water.

Ingestion: For ingestion, if conscious, give several glasses of water but do not induce vomiting. If vomiting does occur, give additional fluids. Get medical attention. Designate the product. Show label if possible.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5: Fire-fighting Measures

Suitable extinguishing media: This product is not flammable. Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function but will be less effective.

Unsuitable extinguishing media: no data available

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Small spills: Absorb with materials such as: Sand. Vermiculite. Collect in suitable and properly labeled containers. Large spills: Contain spilled material if possible. Pump into suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

Section 7: Handling and Storage

Precautions for safe handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials: None known based on information supplied.

Minimum temperature allowed during storage and transportation: 0 °C

(32°F)

Section 8: Exposure Controls/Personal Protection

Control parameters

Exposure limits are listed below, if they exist.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Carc.	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carc.	**OEL Note**
Anhydrous Copper Sulfate	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E	N.E.
Ammonium Chloride, as fume	N.E.	10 8h	N.E.	20 15m.	N.E.	N.E.	10	N.E.	20.	N.E.	N.E.

Individual protection measures

Personal protective equipment

Eye/face protection: Use safety glasses (with side shields). If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Skin protection

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.
Other protection: No precautions other than clean body-covering clothing should be needed.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

Appropriate Engineering Controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be enough for most operations. Local exhaust ventilation may be necessary for some operations.

Section 9: Physical and Chemical Properties

State of Matter:	liquid
Color:	Transparent blue
Odor:	Mild (or faint)
Odor Threshold:	No Data Available
pH:	Approx. 4.0-4.5
Freezing Point:	0 °C (32°F)
Boiling Point:	100 °C (212°F) _
Flash Point:	No Data Available
Evaporation Rate:	> N-butyl acetate
Lower explosion limit:	No Data Available
Upper Explosion Limit:	No Data Available
Vapor Pressure:	No Data Available
Vapor Density:	No Data Available
Density:	1.033 g/cm³
Relative Vapor Density:	No Data Available
Specific Gravity:	Approximately 1.03
Solubility in Water:	Soluble in water
Partition Coefficient: n-octanol/water:	No Data Available
Auto-ignition Temperature:	No Data Available
Decomposition Temperature:	No Data Available
Viscosity:	No Data Available
Volatiles by wt. @ 20 °C	96.06%
VOC Content:	0g/l (0.0 lb./gal.)

Section 10: Stability and Reactivity

Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Possibility of hazardous reactions:	The product is stable.
Conditions to avoid:	Protect from freezing - product stability may be affected.
Incompatible materials:	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

Section 11: Toxicological Information

Information on toxicological effects Acute toxicity

Conclusion/Summary: There are no data available on the mixture itself.

Information on likely routes of exposure

Product Information: No data available
Inhalation: No data available.
Eye contact: No data available.
Skin Contact: No data available.
Ingestion: No data available.

Component Information:

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Anhydrous Copper Sulfate	N.E	N.E.	N.E.
Ammonium Chloride, as fume	7,142.86mg/kg (ATE)	N.E.	N.E.

Carcinogenicity

The information below indicates whether each agency has listed any ingredient as a carcinogen:

Chemical Name **IARC** **NTP** **OSHA Carcinogen**
None of the ingredients are listed nor exempt

Information on toxicological effects

Symptoms: No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization: No information available.
Germ cell mutagenicity: No information available.
Carcinogenicity: No information available.
Reproductive toxicity: No information available.
STOT - single exposure: No information available.
STOT - repeated exposure: No information available.
Aspiration hazard: No information available.

Section 12: Ecological Information

Ecotoxicity: Chronic aquatic toxicity (Category 2), H411
Mobility in Soil: No data available.
Toxicity: No data available.
Other adverse effects: No data available
Bio-accumulative Potential: No chemical in this mixture is known to bioaccumulate
Persistence and Degradability: No data available

Component Information:

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea
Anhydrous Copper Sulfate	N.E	N.E.	N.E.
Ammonium Chloride, as fume	N.E	N.E.	N.E.

Section 13: Disposal Considerations

General information: The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods: Dispose of contents and containers in accordance with national and local regulations.

Section 14: Transportation Information

Land transport (DOT)

Proper Shipping Name: Not regulated for transport
n: Protect from freezing, when exposed to cold temperatures approaching 0 °C (32 °F) or below.

Sea transport (IMDG)

Proper Shipping Name: Not regulated for transport

Air transport (ICAO/IATA)

Proper Shipping Name: Not regulated for transport

Emergency Response Guide (ERG):

Not regulated for transport

Section 15: Regulatory Information

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 311/312.
HAPS (Hazardous Air Pollutants): This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40CFR 61).

U.S. State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

CAS	Chemical Name	% By Weight	CA P65	MA	NJ	PA
7758-98-7	Anhydrous Copper Sulfate	2.5-5%	No	No	No	No
12125-02-9	Ammonium Chloride	2.5-5%	No	No	No	No

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):
This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Section 16: Other Information

This product is recommended for use in industrial or trade (commercial) applications.

It is not recommended for use in Do-It-Yourself applications.

Revision date: December 10, 2019
Version Number: 2.0
Revision explanation Update to conform to GHS
Previous revision date: May 1, 2017

Information Sources: OSHA 29CFR 1910.1200

NFPA RATING: HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

Hazardous Material Information System III (U.S.A.)

HMIS Category	HMIS Rating
Health *	1
Flammability	0
Physical hazards	0
Personal Protective Equipment	C

NEW ZEALAND EPA Group Standard Approval:
Metal Industry Products (Subsidiary Hazard) Group Standard 2020 HSR002612

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program**.**

*If health rating is mark with *, it is a chronic health hazard

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End of Safety Data Sheet